Appl. No. 09/493,338
Amdt. dated ___September 2, 2004_____
Reply to Office Action of June 2, 2004

PATENT

REMARKS/ARGUMENTS

Claims 1, 3-13, and 22-32 were pending in this application. Applicant thanks the Examiner for the allowance of claim 25. Claims 1, 9, and 23 have been amended, and claims 33-37 have been added. Hence, claims 1, 3-13, and 22-37 are now pending. Reconsideration of the subject application as amended is respectfully requested.

Claims 1, 3-13, 22-24, and 26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U. S. Patent No. 6,415,329 to Gelman et al., in view of the article by Weaver entitled, "Xpress Transport Protocol Version 4" (IEEE, October 1995).

RESTRICTION REQUIREMENT RESPONSE

Applicants respectfully traverse the restriction requirement set forth in the June 2, 2004 Office Action for at least the reasons provided herein. In particular, Applicants contend the Examiner has not fully considered whether the added claims are directed to independent or distinct inventions, and Applicants further assert that claims 27-32 are permissible amendments and additions that fall within the search scope conducted by the Examiner.

In issuing the restriction requirement, the Examiner focused on a few limitations that are different than limitations found in claims previously submitted. However, the claims as a whole are directed to the same or similar concepts as previously submitted claims, and the restriction requirement is improper. For example, added independent claim 30 provides a communication apparatus having at least one network interface, a processor, a system memory, and a bus interconnecting the network interface, memory and processor. Each of these features have been examined in previously submitted claims. Claim 30 further provides that the processor is operatively disposed to intercept a first communication connection between a client and server, form a second communication connection between the apparatus and a second apparatus, and transmit information describing the first communication connection to the second apparatus, with the second apparatus adapted for forming a third communication connection to a server. Again, these limitations are contained in prior submitted and examined claims. Claim 30

concludes that the processor is disposed to transmit a first connection acknowledgment to the

client after the third communication connection with the server is formed. This limitation is

similar to, albeit not identical to, dependent claim 12 previously submitted and examined. The

Examiner has not provided a justifiable basis for the restriction requirement based on this

limitation. Thus, the restriction requirement for claims 30-32 was improper, and Applicants

respectfully request withdrawal of the subject restriction requirement.

Claims 27-29 also contain many of the same limitations contained in previously

examined claims. The use of limitations directed to buffering should not change the scope of the

Examiner's search. In fact, the cited art Gelman mentions buffering as well. Thus, Applicants

respectfully assert that claims 27-29 also fall within the scope of the originally examined claims.

Applicants respectfully request withdrawal of the restriction requirement and issuance of a non-

final Office Action directed to claims 27-32.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Applicants respectfully assert that the claim rejections under 35 U.S.C. § 103

have been overcome and/or rendered moot by the amendments above and comments below.

First, the combination of Gelman with Weaver defeats the purpose of Gelman for

at least the reasons noted in earlier filed amendments. For example, Gelman attempts to improve

the efficiency of TCP/IP protocol over a high delay bandwidth network. The entire specification

of Gelman is directed to using a link layer protocol WLP in an attempt to accomplish this

improved efficiency. As previously noted, Gelman teaches away from using a transport layer

protocol by stating "because the present invention uses a link layer to improve TCP performance

instead of a transport layer, a single pool of buffer space for all data flowing through the WLP

may be maintained." (Gelman, col. 8, lines 24-27). Further, as previously noted, Gelman uses a

SNAT module to direct packet traffic to the WLP link layer module 68. Gelman then uses a link

layer protocol conversion for the transmission of data to a remote gateway. The manipulation of

packets at the link layer makes it unnecessary to use a different transport layer protocol. In fact,

Gelman repeatedly states it uses standard TCP modules for its system, using the link layer to

increase efficiency. Hence, there is no motivation to combine Gelman with a different transport layer protocol.

The Weaver reference mentions XTP characteristics, but fails to provide any detail on how to implement XTP using a gateway. To use TCP or XTP, the appropriate foundation must be laid by way of the link layer and subsequent underlying layers in the seven layer OSI model. Using XTP instead of WLP in the Gelman system would not operate as presumed by the Examiner. The mere fact that Gelman and Weaver both mention similar goals (improving transmissions over long-latency links) does not mean Weaver and Gelman can be successfully combined without additional teaching. Further, some of the additional advantages mentioned in Weaver (e.g., multicasting), and cited by the Examiner as further motivation to combine the two references, cannot be implemented with Gelman. Hence, they are not proper motivation to combine the two references. Thus, Applicants respectfully assert that the combination of Gelman and Weaver is improper.

Further, even if the Examiner finds a motivation, without improper hindsight, to combine Gelman and Weaver, Applicants respectfully assert that the combination still fails to disclose, teach, or suggest the invention as claimed. For example, independent claim 1 provides a communication apparatus having, *inter alia*, a processor operatively disposed to perform a variety of functions. These functions include intercepting a connection attempt initiated by the client intended for a server. A connection is established between the first and second gateways with the connection unique to the connection attempt. In this manner, the established gateway-to-gateway connection is only available for communications between this combination of client and server.

In Gelman, the WLP connection between the gateways is not unique to the connection attempt. As previously discussed the Gelman WLP connection handles multiple TCP connection attempts, and thus supports an N:1:N connection relationship. Further, the Gelman client gateway performs the TCP three-way handshake long before any connection attempt is made with the destination server. Applicants direct the Examiner to col. 29, lines 33-47 for additional detail on the Gelman connection set-up. In particular, the Examiner will note that the SYN/ACK (connection acknowledgment) has been returned from the client gateway 504 to the

client as the client gateway application is receiving the destination addressing information.
Again, this is well prior to any connection attempt being made with the destination server. In
fact, circumstances may arise that prevent the connection to the destination server,
notwithstanding that the Gelman gateway already has sent a confirmation of the connection to
the client. As previously noted, Weaver provides no help in this matter as Weaver is silent on
the implementation of XTP with gateways. Thus, Gelman in view of Weaver fails to disclose,
teach, or suggest the invention as provided in independent claim 1, and claim 1 is allowable.

       Dependent claims 3-8, and 33-36, are allowable for at least depending from an
allowable independent claim1, as well as for the additional novel features contained therein. For
example, the processor in claim 33 is further disposed to transmit a first connection
acknowledgment response from the satellite gateway to the client when a communication
connection with the destination server occurs. The apparatus of claim 33 does not allow the
client to receive connection acknowledgments before the connection to the server is made. The
connection acknowledgment is transmitted to the client only when the communication
connection with the server occurs. This is not the case with Gelman, and Weaver provides no
further teaching in this regard. So, claim 33 is allowable for at least this additional reason.

       Additionally, the processor of dependent claim 34 is operatively disposed to
intercept a second connection attempt, and establish a second connection between the gateways.
In this manner, the apparatus of claim 34 supports a 2:2:2 connection relationship. The
connections for this apparatus are further scalable. In contrast, the Gelman system uses a single
WLP connection between the two gateways. Thus, dependent claim 34 is allowable for at least
this additional reason.

       For at least the above reasons, independent claims 9 and 23 are in condition for
allowance. For example, claim 9 defines a communication apparatus that establishes first,
second, and third communication connections between the client and first gateway, between the
first and second gateway, and between the second gateway and the server. Further, as required
by amended claim 9, the 1:1:1 connection relationship is "for use with only communications
between the client and the server." As previously noted in earlier filed amendments, Gelman
does not use a 1:1:1 connection relationship. Even in the event Gelman is presently only

facilitating communications between a single client and a single destination server, the connections are not for use with only communications between the client and the server. As previously noted, a single WLP session is designed to handle multiple communication sessions between multiple clients and servers. Thus, for at least this reason independent claim 9 is in condition for allowance. Claims 10-13 and added claim 37 are allowable for at least depending from an allowable independent claim as well as for the additional novel features contained therein.

Independent claim 23 is amended to include similar limitations to those described above in conjunction with claims 1 and/or 9. More specifically, the communication apparatus of claim 23 includes a processor operatively disposed to, *inter alia*, establish a transport connection between first and second gateways, with the transport connection being only for bi-directional flow of information intended for the client and the destination server. Thus, claim 23 is in condition for allowance, as are dependent claims 24 and 26.

Again, Applicants thank the Examiner for the allowance of independent claim 25. Applicants request a substantive Office Action on previously added claims 27-32, or the allowance thereof.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.
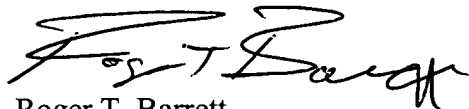
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If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

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